



*KNOWLEDGE ENHANCEMENT EVENTS:
UNMET NEEDS – LONG TERM RECOVERY
AFTER ACTION REPORT*

REPUBLIC PLAZA CONFERENCE CENTER

DENVER, CO

AUGUST 30, 2012

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14. ABSTRACT The working group was designed to highlight the importance the Non-Profit and Faith Based Sectors play in all phases of a disaster most importantly the recovery phase. During the recovery phase of a wide area disaster, communities organize by implementing plans and structures aimed at bringing help to affected individuals and families in a holistic, integrated process that brings needed resources to the most vulnerable. A strong, well-organized Long-Term Recovery group can ensure that available resources are utilized so as to address recovery needs. During long term recovery unmet needs are identified through a case management process. These needs may range from an individual needing a new hot water heater, to kennel costs encountered by a volunteer firefighter while battling a wildfire. As unmet needs are identified, the long term recovery members are able to identify resources and finances available to meet those needs. The key to a successful long term recovery was identified as a coordinated unified effort by community members, emergency management, private & non-profit sector, and faith based organizations with a clear understanding of the strengths and benefits each group can bring to the table.					
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1.0 Executive Summary

This After Action Report (AAR) was developed following the Unmet Needs & Long Term Recovery Group Knowledge Enhancement Working Group, which occurred on August 30, 2012, in Denver, CO. This AAR incorporates information from recorder notes, including questions, comments, recommendations, and includes information from the feedback forms.

The purpose of the Unmet Needs & Long Term Recovery Groups was to increase the awareness and emphasize the essential importance of the role of the nonprofit sector in recovery:

- The nonprofit sector plays an essential and unduplicated role in both short and long term recovery of impacted communities.
- Nonprofits include voluntary, faith-based, community organizations, charities, foundations and philanthropic groups as well as professional associations and academic institutions.
- The formidable value of the work of these stakeholders resides in:
 - Their funding comes from private and charitable sources for the vast majority of their activities.
 - Most of the staffing comes from volunteers, from both the impacted communities and from other communities often from across the state and nation.
 - These groups remain in the communities long after state and national government efforts have ended or have been broadly scaled down.
 - Using non-government funds and volunteers, these groups engage in Community recovery planning.
 - They offer case management services including volunteer coordination, and technical and financial support.
 - Behavioral health, psychological and emotional support are provided.
 - They provide housing repair and construction services that meet accessibility/universal design standards.
 - They have Project implementation with extensive experience in disaster recovery.
- Nonprofits directly supplement and fill gaps where government authority and resources cannot. Resourceful fundraisers, grantors and investors inject needed financial resources to meet recovery needs and obligations that otherwise are not funded by a government program.
 - Nonprofit organizations are critical for ensuring participation and inclusion of all members of the impacted community.

The Guest Speaker was Reverend Gordon Knuckey. Reverend Knuckey is with UMCOR (United Methodist Committee on Relief) and has worked in recovery for over 30 years.

According to Reverend Knuckey, there was a time when Emergency Managers thought when the streets were cleaned the recovery work was complete. But they soon realized that this was not the case. Gordon raised several key points including:

- There has been a steady recognition of the importance of the non-governmental organizations in both planning and implementing recovery.
- While much progress has been made, recovery, and all of the associated work and effort, is just now beginning to gain the importance that it needs to be recognized as a full and equal component in the emergency management cycle: mitigation, preparedness, response and recovery.

In addition, other speakers specifically noted that:

- Recovery Planning is essential when formulating the potential need for a Long Term Recovery Group.
- It is important to connect and establish the key players and agencies ahead of time that will need donations and volunteers.
- Currently tools and annexes regarding donation and volunteer management are being developed to add to local and state emergency operation plans showing a commitment on the part of emergency managers to include these crucial components of recovery.

The WARRP Framework Writing team will incorporate findings from this report into the Denver UASI All-Hazards Regional Recovery Framework with CBR Annexes as part of the Wide Area Recovery and Resiliency Program (WARRP).

Note: The content of this After Action Report represents the best efforts of the participants based on the information available at the time of publication, but is not intended to convey formal guidance or policy of the federal government or other participating agencies. The views and opinions expressed herein do not necessarily state or reflect those of their respective organizations or the US Government.

2.0 Background

The Departments of Defense and Homeland Security, in close coordination with the Denver Urban Area Security Initiative (UASI), have partnered to establish the Wide Area Recovery and Resiliency Program (WARRP). The purpose of this collaborative program is to study, develop and demonstrate frameworks, operational capabilities and interagency coordination, enabling a timely return to functionality and re-establishment of socio-economic order and basic services through execution of

recovery and resiliency activities, as applicable. This program will explore a coordinated systems approach to the recovery and resiliency of wide urban areas, including meeting public health requirements and restoring all types of critical infrastructure, key resources (both civilian and military) and high traffic areas (transit/transportation facilities) following a chemical, biological or radiological (CBR) incident.

Whole Community Disaster Recovery

A new future in disaster recovery

- Disasters bring destruction, tragedy and hardship, but the recovery process can create new opportunities and partnerships.
- Long-Term Recovery Groups have a foundation in the “Whole of Community” approach. This is a new way to look at all parts of the community, involving residents and stakeholders in a holistic way to reshape their future.
- Disaster recovery becomes an opportunity to develop a vision to re-think, re-design, and re-build in new ways, with individuals, organizations, and public and private sector partners working together.

Prepare for Recovery – It is critical to establish roles and responsibilities for government, public sector, private sector and non-profit sector as part of pre-disaster planning.

- Recovery can be successful only when it is locally driven and the community takes ownership of the process.
- States that understand the value of long-term recovery support can maximize state and federal resources in a timely manner post-disaster.
- State partnership and support of local communities in the long term recovery process is vital to successful coordination of all levels of government. Project implementation cycles can be shortened.
- Coordinated efforts among public, private, and nonprofit partners are crucial to successful implementation of recovery plans.

3.0 Goal & Objectives

Goal

- To understand the organization, membership, function and responsibilities of a long-term disaster recovery organization
- To identify effective strategies to bring communities together focusing on determining their long-term unmet needs
- To determine who establishes or sets up a Long Term Recovery Group
- To understand how a LTRG handles financial resources i.e. the best practices/guidelines to identify the resources including who controls how the money is spent
- To discuss the different strengths like a points of consensus tailored to community needs
- To determine a multi-year sustainable model of LTRG and the transition back to the community

Objectives

- To allow every stakeholder to understand their role in long term recovery and the impact they will have on the community
- To create a significant guideline for the WARRP framework that will provide local, county, & state officials a meaningful method to establish and sustain a long term community recovery
- To address the unmet needs and long term recovery challenges facing communities post disaster
- To enhance the planning and coordinated efforts with every agency that supports long term recovery and unmet needs

4.0 Scope & Format

Scope

The Unmet Needs & Long Term Recovery KEWG was designed to bring key stakeholders together to bring expertise and informative dialogue that can be added to the Framework. The original date of the workshop was June 13, 2012 but due to the overwhelming demands of the Colorado Wildfires in June, the workshop was postponed to August 30, 2012. This not only allowed additional time to work on the content of the workshop, it also provided an opportunity to review the work of two very successful Long Term Recovery Groups that have been established in Ft. Collins and Colorado Springs, CO in response to two of the most destructive wildfires in the state's history. With the help of FEMA Region VIII's Voluntary Agency Liaison, the group was able to utilize real time data and best practices to enhance the dialogue and participation of the workshop.

An additional benefit to this KEWG was the donation of the conference room by a big contributor to our Private Sector Working Group. Byron McDaniel, Security Director for Brookfield Office

Properties at the Republic Plaza building downtown Denver was kind enough to host the Unmet Needs Long Term Recovery KEWG. Byron and Brookfield also provided free parking, beverages, and snacks throughout the day.

Format

This workshop was a one-day event with speakers at the beginning of the day and interactive problem solving in the afternoon. See [Annex A – Agenda](#). The event was held at the Conference Center at Republic Plaza in Downtown Denver CO on August 30, 2012. Participants from various organizations attended and are listed in [Annex B – Participants](#). Feedback was captured using a standard feedback form and a summary of workshop findings are found in [Annex C – Participant Feedback](#). For information on the planning team, or to get more information on this after action report, see [Annex D – Key Points of Contact](#).

This event used the standard WARRP Radiological scenario to base workshop content. For a summary of these scenarios, see [Annex E – Scenarios](#).

5.0 Key Discussion Areas & Outcomes

Throughout this event, participants were engaged and offered the following recommendations of improvement in this area.

Category	Discussion Items	Recommendations
Planning for Recovery	The members of the Long Term Recovery Group need to be brought to the planning process before the disaster. Local Leaders should not be learning about the strengths of the various agencies after disaster strikes.	Local leaders and emergency management need to encourage and participate in partnership with strong local VOAD's (Voluntary Organizations Active in Disaster.) The role of VOAD's should be included in EOP's at every level of government.
Measurements of success in Recovery	There are multiple measurements of success during recovery, but the measurements are inconsistent depending on the entity or agency doing the measurement. I.e. some groups consider the end of recovery when all of the money has been distributed.	<ul style="list-style-type: none"> • An agreed upon definition of Recovery. Determine a measurement target that all stakeholders can agree on. Does a successful recovery resemble Greensburg Kansas? • Another measurement of recovery can be when all Recovery Related Needs are met. But that can be a very subjective and nebulous measurement. • According to NVOAD LTR Guide some indicators of recovery including a transition back to the local community may be: <ul style="list-style-type: none"> ○ All known cases have been completed. ○ Financial, material and/or volunteer resources are exhausted. ○ The enthusiasm and energy of the leadership is gone and/or there is no one willing to provide leadership ○ Partner organizations and member agencies are no longer participating. ○ A pre-agreed end date for the program has been reached.
Stakeholders on a Long Term Recovery Group	Who should be a member of the Long Term Recovery Group?	<ul style="list-style-type: none"> • Suggested members: FBO's, NGO's, Private Sector, Cultural Groups, Local County & State Leadership, DCT & VCT, FEMA VAL, HOA's, Civic Groups, DORA, DOLA, Political Leaders, Insurance Associations, Housing Authorities, Behavioral Health Organizations, Public Schools, Community Based Organization, Building Officials, & Land Use Officials.

Category	Discussion Items	Recommendations
How to Link Unmet Needs to Resources	How do you get the resources to those in need?	<ul style="list-style-type: none"> It is critical to address unmet needs on a timely basis. It is also critical to have a system in place that fairly distributes financial and material donations to those in need. <ul style="list-style-type: none"> Case Management (not Casework,) has been the most holistic and effective way to ensure donations are fairly distributed to those in need. An evaluation system (i.e. point system) needs to be in place to determine client's needs and satisfy donor intent.
Choosing Fiscal Agent Controlling funds for Unmet Needs	<ol style="list-style-type: none"> Honoring Donor intent and meeting the needs of the affected community in a timely fashion are some of the biggest challenges faced by LTRG's. Many times community leaders and politicians are pressured into creating recovery funds and are later scrutinized for mismanagement of the donated dollars. Career ending situations often occur when the public perceives mishandling of financial contributions to an affected community. 	<p>Possible ways to accomplish this:</p> <ul style="list-style-type: none"> The LTRG may seek out an existing not-for-profit agency within the community to serve as its fiscal agent. The following should be in place: <ul style="list-style-type: none"> The fiscal agent has internal safeguards and record protection procedures, as well as the ability to provide regular financial reports to the LTRG. Annual external audits are conducted by the fiscal agent. It is important that the agent agree to manage the funds at the direction of the LTRG. The funds are given to and remain the property of the LTRG and not the fiscal agent. The LTRG should establish a written Memo of Understanding (MOU) with the fiscal agent. Alternatively, the Internal Revenue Service grants 501(c) 3 status to not-for-profit agencies engaged in charitable, educational, or religious activities, thus allowing donors to claim a tax deduction for their gifts. Incorporating and obtaining legal 501(c) 3 status for your LTRG is not terribly complicated, but it does take some time and carries with it obligations for receipting and providing regular financial reporting. Legal counsel should be sought for more information on incorporating as a not-for-profit agency. (Excerpts from NVOAD LTR Guide 2012) Further research and discussion needs to occur regarding the planning for a fiscal agent post disaster. Is this something that can be put into an EOP? Are there ways to set up MOU's ahead of time identifying a fiscal agent before disaster strikes?

Category	Discussion Items	Recommendations
The success of DCT/VCT through the use of Aidmatrix in collaboration with the State of Colorado and the VOAD's responding to the Colorado Wildfires of 2012.	<ol style="list-style-type: none"> 1. Carefully planning for unsolicited donations and unsolicited volunteers made for a very successful use of the Aidmatrix tool during the Colorado Wildfires of 2012. 2. Informative messaging is vital in preventing what is typically referred to as the "disaster after the disaster," when unsolicited donations and volunteers begin showing up at various locations. 3. The system is not perfect, but a terrific start to what could be a perfect system. 	<ul style="list-style-type: none"> • Identifying and connecting the key players ahead of time proved to be very effective. Establishing the agencies ahead of time that would need donations and volunteers is essential to the success of the Aidmatrix tool. • A website was developed in response to the wildfires titled helpcoloradonow.org. The website was scalable so that as each new wildfire started, an additional page could be added to the website. This website was the link to Aidmatrix. The PIO's helped ensure the success of the HelpColoradoNow website. They found by using guidelines in the messaging they were able to push the donation list out to the public and encouraged every offer to go directly to the website. • The challenge in the past has been getting the offers to those who need them. This was accomplished by assigning individuals to allocate the offers. Staff was assigned to the allocator role 24/7 initially to respond to immediate disaster caused needs. As the disaster moved into the recovery phase, the Aidmatrix tool continued to be effective and currently is still in use helping individuals and agencies through the recovery phase. • Over 9000 volunteer offers came through Aidmatrix during this summer. The tool managed expectations of volunteers before they signed up and prevented thousands of spontaneous volunteers showing up at random locations disrupting response efforts. • One drawback to the messaging was discouraging people not to donate goods or volunteer when it was not needed. As there is a need for the community to somehow get involved, a softer approach or preplanned message needs to be considered.

6.0 Conclusion

Natural disasters are challenging enough. But, how will your community meet the needs of hundreds of thousands displaced residents post a WMD incident? Who will have the resources to meet the needs of the community weeks, months and even years after being denied access to homes and possessions? How will the needs of the victims be addressed when they are without insurance reimbursement because it was an act of terrorism? The unmet needs will be overwhelming.

Due to decades of experience in disaster response and recovery, non-profits, faith based organizations, private sector and service organizations will more than likely have the means to provide resources and finances to those who have unmet needs when Federal and Local funds are exhausted. When local emergency managers know what resources may be available to members of their community external to the local services they can provide they will be motivated to learn how these Long Term Recovery Groups will benefit their community and ease the pain of the long term rebuilding of the affected area.



Annex A – Agenda

0800 - 0830	Registration
0830 – 0850	Welcome: Introductions, Review of Workshop Objectives, Agenda
0850 - 0900	Framework Overview / Connection to Workshop
0900 – 0915	Unmet Needs & Long Term Recovery Overview
0915 – 1015	Guest Speaker - Reverend Gordon Knuckey (UMCOR) United Methodist Committee on Relief
1015 – 1030	Break
1030 – 1050	Sequence of Service Jon Wallace FEMA Region 8 VAL
1050-1105	Summer Disasters – Successes of DCT (Donations Coordination Team) & VCT (Volunteer Coordination Team) & Utilization of Aidmatrix Jennifer Poitras
1105 – 1150	Introduction to Scenario & Breakout Session 1 – Short Term Recovery
1150 – 1200	Report out from Breakout Session
1200 – 1300	Lunch
1300 – 1345	Breakout Session 2 – Intermediate Term Recovery
1345 – 1400	Report out from Breakout Session
1400 – 1415	Break
1415 – 1515	Breakout Session 3 Tabletop (Long Term Recovery)
1515 – 1545	Recap & Next Steps – Day Ends

Annex B –Participants

Name	Organization
Acker, Robert	Ackcellent Consulting LLC
Bluhm, Carolyn	Denver OEMHS
Briese, Garry	WARRP Local Program Integrator Cubic Integrated Systems
Bright, Michael	ACSDR
DiPaolo, Elizabeth	Cubic Integrated Systems
Duggins, Meghan	Colorado Department of Local Affairs
Holloman, Bruce	COEM
Horn, Jody	American National Red Cross
Lynch, Rose	Englewood OEM
Manson, Sherry	The Salvation Army
McDaniel, Byron	Brookfield Properties
Miller, Carl	C.S. Office of Emergency Management
Morton, Bryan	2-1-1 United Way of Larimer County
Poitras, Jennifer	COVOAD
Swanson, Todd	State of Colorado
Thompson, Trent	NORAD-U.S. Northern Command
Tolbert, Bill	Colorado VOAD
Ulrick, Brannen	FEMA
Wallace, Jon	Federal Emergency Management Agency
Williams, Pat	Denver Emergency Management

Wolfe, Teri	Cubic Integrated Systems
Zamore, Ysaye	Mental Health Partners

Annex C – Participant Feedback

What was the most effective aspect of this workshop group Meeting?

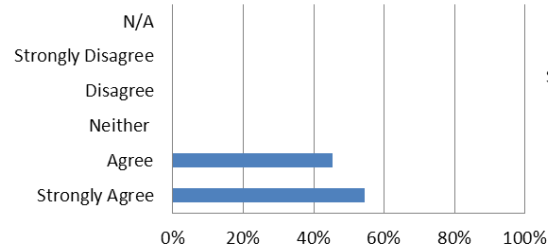
- Identifying Gaps in response and recovery activities
- Excellent Complement of participants
- New Knowledge and information
- Opportunity to share roles & responsibilities of NGO's, FBO's & CBO's
- The presenters were helpful & knowledgeable
- Jon Wallace sequence of service presentation
- Open discussion format
- Gordon's presentation

What could be improved for future meetings?

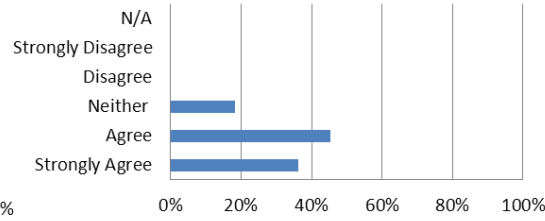
- Copies of supporting documents i.e. NDRF, and local & state EOP's for breakout sessions
- Arranging the room in a way that is more conducive to conversation.

See Participant Feedback Graphs on next page

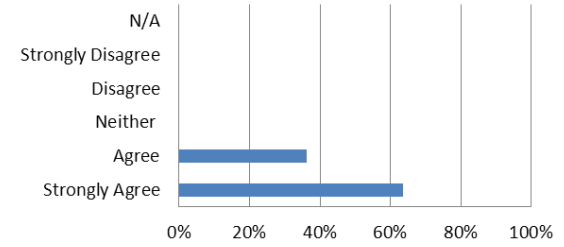
Working Group Was Valuable Use of Time



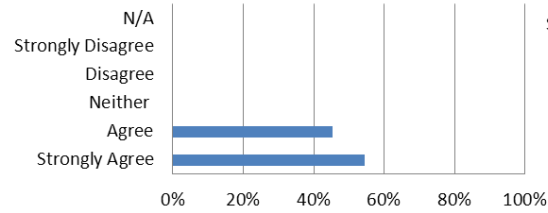
Working Group Expanded Professional Network



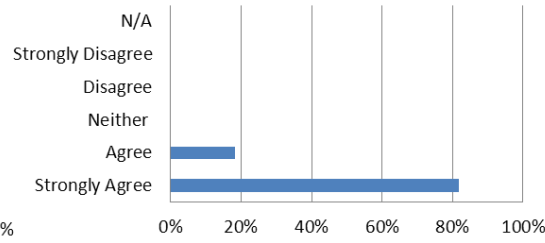
Facilities Contributed to Success



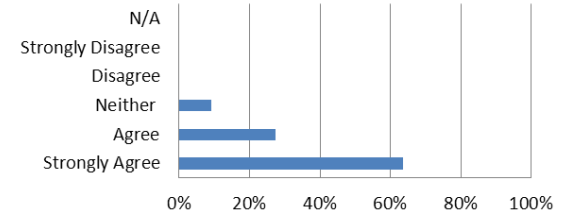
Working Group Increased Awareness of CBR Incident



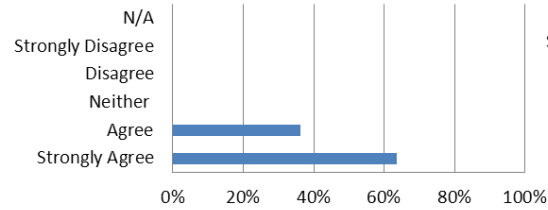
Professional Staff



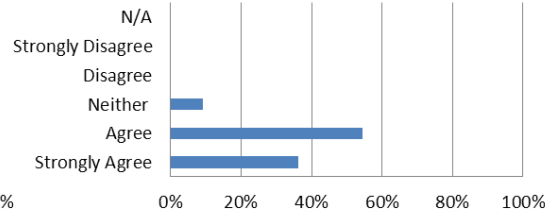
Recommend WARRP Working Groups to Colleagues



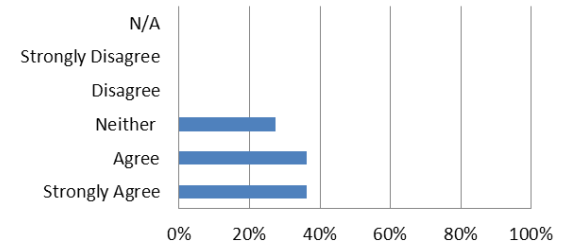
Learned Something New From Working Group



Working Group Identified & Addressed Relevant Issues



Working Group Met Expectations



Annex D – Key Points of Contact

Garry Brieze

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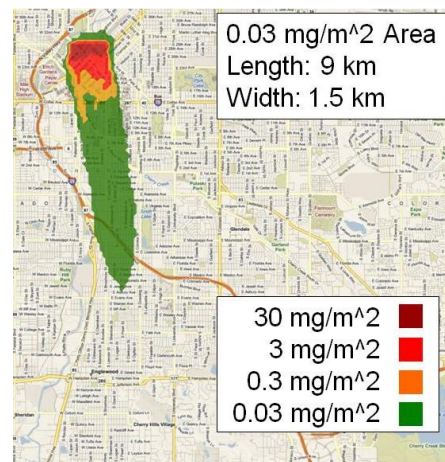
CFM, Interim Recovery Manager
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Annex E – WARRP Scenarios

CHEMICAL SCENARIO

National Planning Scenario #5: Chemical Attack – Blister Agent

- **Blister agent attack on a packed Coors Field (Downtown Denver).** 95 fatalities; over 1,000 hospitalized (max. capacity of field is 55,445)
 - **Evacuations/Displaced Persons:** Tens of thousands evacuated and thousands seeking shelter (decontamination required)
 - **Significant contamination in affected areas, including the stadium and surrounding area.** Agent has generated a downwind vapor hazard. Approx. contamination = over 5 miles
- | | |
|---|-----------------------------|
| ○ Several high value properties contaminated including Coors Field, Pepsi Center, and Invesco Field Mile High | ○ Basic services affected |
| | ○ Local businesses affected |



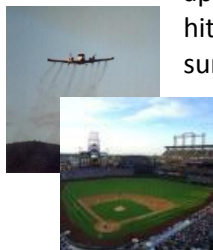
Agent Background

Agent YELLOW, which is a mixture of the chemical warfare agents Sulfur Mustard and Lewisite, is a liquid with a garlic-like odor. Sulfur mustard, also known as **mustard gas**, has the ability to form large blisters on exposed skin. Lewisite is a blister agent that contains arsenic, a poisonous element. Skin irritation from sulfur mustard gradually turns into large blisters filled with yellow fluid wherever the agent contacted the skin. Temporary blindness can occur if a victim's eyes are exposed. At very high concentrations, if inhaled, mustard agent causes bleeding and blistering within the respiratory system, damaging mucous membranes and causing pulmonary edema. Severe mustard gas burns (i.e., where more than 50% of the victim's skin has been burned) are often fatal, with death occurring after some days or even weeks has passed. The blister effects of Lewisite occur sooner, and extensive eye exposure can cause permanent blindness.



Scenario

Terrorist agents acquire 175 gallons of Agent YELLOW, equip a small airplane with sprayers and fly the plane at low altitude over **Denver's Coors Field** during a Rockies baseball game. At his closest approach to the stadium, the pilot veers directly towards the target. Ignoring frantic air traffic control calls and an approaching police helicopter, he cuts his speed and drops over the stadium, simultaneously hitting the spray release button. A coarse spray of Agent YELLOW is released. In the stadium, surprise at the appearance of the aircraft turns to panic when the spray is observed coming out of the rear of the plane. **In total, 53,000 people have been either hit by, or breathe vapors of, the Agent YELLOW spray.** Thousands are injured and many are killed in the rush to exit the stadium. People hit in the eyes experience immediate pain, and the first ones out of the stadium are trying to get away as soon and as far as possible. Numerous auto accidents occur in the parking lot and access roads. Some people track contamination into nearby residences, onto public transportation and into hospitals.



BIOLOGICAL SCENARIO

National Planning Scenario #2: Biological Attack – Aerosol Anthrax

- **Two covert anthrax aerosol attacks by an organized worldwide terrorist group.** Tens of thousands of people exposed and thousands of deaths.
- **Evacuations/Displaced Persons:** Tens of thousands evacuated, thousands seek shelter in immediate area (decontamination required)
- **Significant contamination in affected areas, including critical infrastructure, commercial, military & private property.**

Approx. contamination = 2 areas of 10 sq. miles each

- | | |
|---|---|
| ○ Hundreds of buildings contaminated | ○ Local government operations relocated |
| ○ Basic services affected | ○ Local businesses affected |
| ○ Local military installations affected | |



Agent Background



Anthrax is a bacterial disease caused by *Bacillus anthracis*. There are three types of this disease: cutaneous anthrax, gastrointestinal anthrax, and inhalation anthrax. Anthrax spores delivered by aerosol spray result in inhalation anthrax, which develops when the bacterial organism is inhaled into the lungs. A progressive infection follows. In most people, a lethal infection is expected to result from inhalation of about 8,000 spores however, a small number of people (particularly the elderly, very young and immunocompromised) may become ill from an exposure as small as 2-4 spores.

Respiratory infection in humans initially presents with cold or flu-like symptoms for several days, followed by severe (and often fatal) respiratory collapse. Historical mortality was 92%, but when treated early (as seen in the 2001 anthrax attacks) observed mortality was 45%. Distinguishing pulmonary anthrax from more common causes of respiratory illness is essential to avoiding delays in diagnosis and thereby improving outcomes. Illness progressing to the fulminant phase has 97% mortality regardless of treatment.

Scenario

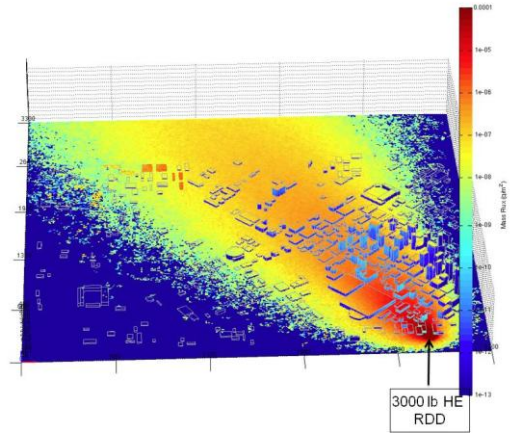
On an autumn Monday morning, a specially fitted truck drives north on I-25. When the truck reaches the Auraria section, the driver's companion turns on a concealed improvised spraying device with a conventional nozzle that rapidly aerosolizes approximately 100 liters of wet-fill *Bacillus anthracis* (anthrax) slurry. The release is sufficient to result in the potential exposure of tens of thousands of persons. Approximately 50 minutes later, a second truck drives along E. Alameda Pkwy. in Aurora, CO releasing a second cloud of anthrax. The wind blows the cloud over Buckley Air Force Base (AFB) contaminating the airstrip and an area extending nearly to the Denver airport.

Two days later, Denver area Bio Watch samplers detect the presence of anthrax and it is determined that a bioterrorism event has occurred. The appropriate notifications are made, and patients begin to report to area hospitals.

RADIOLOGICAL SCENARIO

National Planning Scenario #11: Radiological Attack – Radiological Dispersal Devices

- **Two Radiological Dispersal Device (RDD) attacks at the U.S. Mint (downtown) and the Anschutz Medical Campus (Aurora).** Tens of thousands of people exposed and hundreds of deaths.
- **Evacuations/Displaced Persons** 10,000 evacuated to shelters in safe areas (decontamination required prior to entering shelters) 25,000 in each city are given shelter-in-place instructions. Hundreds of thousands self-evacuate from major urban areas in anticipation of future attacks
- **Most radioactive fallout is within tens of miles**, some may be carried up to hundreds of miles.
 - Hundreds of buildings contaminated
 - Basic services affected
 - Local businesses affected
 - Government operations relocated
 - Mass Transit (East-West rail line) affected
 - Local military installations affected



Radioisotope Background

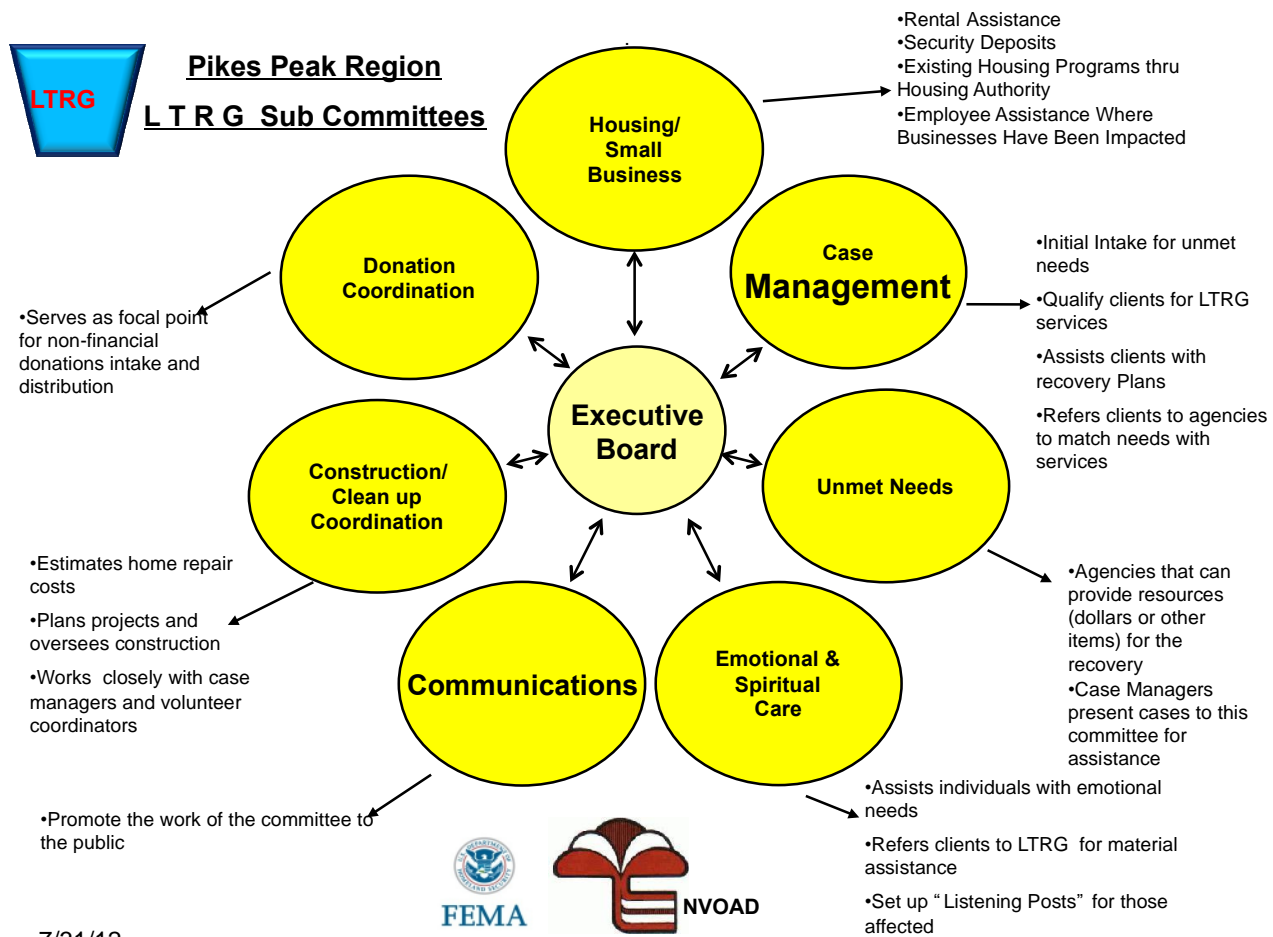
Cesium-137 (^{137}Cs) is a radioactive isotope of cesium. **The half-life of cesium-137 is 30.17 years.** Because of the chemical nature of cesium, it moves easily through the environment. This makes the cleanup of cesium-137 difficult. People may ingest cesium-137 with food and water, or may inhale it as dust. If cesium-137 enters the body, it is distributed fairly uniformly throughout the body's soft tissues, resulting in exposure of those tissues. Exposure to cesium-137 may also be external (that is, exposure to its gamma radiation from outside the body). If exposures to cesium-137 are very high, serious burns, and even death, can result. People may become internally contaminated (inside their bodies) with radioactive materials by accidentally ingesting (eating or drinking) or inhaling (breathing) them, or through direct contact (open wounds). The sooner these materials are removed from the body, the fewer and less severe the health effects of the contamination will be.

Scenario

Terrorist obtains approximately **2,300 curies of ^{137}Cs (CsCl)**, and 1.5 tones of Ammonium nitrate/Fuel oil (ANFO). The explosive and the shielded CsCl sources are packaged into bombs and loaded onto a truck. The total explosive yield in each device is approximately 3,000 pounds. At 11:15 a.m. during the school year, terrorists detonate the **3,000-pound truck bomb** containing the 2,300 curies of ^{137}Cs outside the U.S. Mint in the downtown business district of Denver. The explosion collapses the front of one building and causes severe damage to three others. Windows are blown out of five other buildings. Amid the destruction, ^{137}Cs contamination covers the scene and the contaminated detonation aerosol is lifted more than 100 feet into the air and spread across a wide area.

In Aurora, a second explosion is timed to go off at approximately 12:30 p.m. on the same day outside The Children's Hospital's Emergency Department, the only Level I Pediatric Trauma Center in Colorado, located in the middle of sprawling Anschutz Medical Campus. The time lag is intended to maximize press coverage and spread fear and uncertainty. Local first-response capacity, however, is depleted in cities two and three because many responder assets have been dispatched to assist nearby Denver during the response.

Annex F – Flow Diagram Example of Pikes Peak LTRG



7/31/12

Annex G – Acronyms

After Action Report (AAR)
Community Based Organization (CBO)
Chemical, Biological, Radiological (CBR)
Centers for Disease Control (CDC)
Colorado Division of Emergency Management (CDEM)
Colorado Department of Public Health (CDPHE)
Colorado Emergency Preparedness Partnership (CEPP)
Defense Threat Reduction Agency (DTRA)
Department of Homeland Security (DHS)
Department of Defense (DoD)
Department of Energy (DOE)
Department of Local Affairs (DOLA)
Department of Regulatory Agencies (DORA)
Donation Coordination Team (DCT)
Emergency Management (EM)
Emergency Operation Plan (EOP)
Faith Based Organization (FBO)
Frequently Asked Question (FAQ)
Federal Emergency Management Agency (FEMA)
Federal Emergency Management Agency Voluntary Agency Liaison (FEMA VAL)
Health and Human Services (HHS)
Home Owners Associations (HOA's)
Interagency Biological Restoration Demonstration (IBRD)
Lawrence Livermore National Laboratories (LLNL)
Long Term Recovery (LTR)
Long Term Recovery Group (LTRG)
Multi-Agency Coordination (MAC)
National Disaster Recovery Framework (NDRF)
Non-Governmental Organization (NGO)
Office of Emergency Management (OEM)
Pacific Northwest National Laboratory (PNNL)
Point of Contact (POC)
Recovery Support Function (RSF)
Social Media (SM)
Subject Matter Expert (SME)
Sandia National Laboratory (SNL)
Science and Technology (S&T)
Urban Area Security Initiative (UASI)
United Methodist Committee on Relief (UMCOR)
Volunteer Coordination Team (VCT)
Wide Area Recovery & Resiliency Program (WARRP)